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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,628	09/29/2000	Chuxin Chen	28787.3	9579

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EXAMINER

BAUTISTA, XIOMARA L

ART UNIT

PAPER NUMBER

2173

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,628

Applicant(s)

CHEN ET AL.

Examiner

X L Bautista

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 11 (line 1) is objected to because of the following informalities: "claim 11" should be changed to --claim 10-- or --claim 1--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-11 are directed towards a "computer program" comprising "program instructions". Claims 1-11 can be construed as nothing more than the instruction contents of a computer program, it is unclear under 35 U.S.C. 112, second paragraph as to how these uninterpreted instructions can carry out these alleged functions, since such a meaning is only secured upon a (missing) interpretation and execution within the context of a "user" accessing "an inventory system."

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-11 are rejected under 35 U.S.C. 101 because they do not recite statutory subject matter.

As noted in the above explanation of rejection under 35 U.S.C. 112, second paragraph, these claims can be viewed as an attempt to secure patent protection for computer instructions, which, although possibly resembling a "machine" or "article of manufacture" in initial appearance, do not truly fit any of the four statutory classes of invention, "process, machine, manufacture, or composition of matter." They are not even held upon a computer-readable medium, as discussed in the Guidelines for examination, 1995.

Instead, claims such as these, directed towards program instructions, recite nothing more than information, having some **potential** use to a computer capable of reading and interpreting them, in a manner analogous to the information content of printed matter, long held to be non-statutory.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 8-10, 12, 14, 20, 26, and 28 are rejected under 35 U.S.C.

103(a) as being unpatentable over *Grau et al* (US 5,910,803) in view of *Yoshiyama* (US 5,621,383).

Claim 1:

Grau discloses a network mapping tool that organizes (drawing) and displays (visualizing) topology data (network) having a graphical user interface for displaying the atlas on a computer screen in a variety of view that facilitate comprehension of logical relationships between various components of the system (abstract; col. 1, lines 57-67). The mapping tool has an atlas creator 272 that creates the atlas from the topology data and a layout manager 276; both permit drawing a graphical representation of a network (col. 2, lines 1-18; col. 4, lines 2-20, 31-38). Grau teaches a management server station 200 that monitors the internetwork in order to collect, organize and record topology data and atlas data in the topology database 120. The server includes a database interface component 204 having a topology data interface 206 and an atlas data interface 208 for accessing the data in the database (col. 4, lines 14-20). Grau does not teach that the network is a

synchronized optical network (SONET) ring. However, Yoshiyama discloses a ring network system formed by a plurality of nodes connected to one another through a ring-shaped path, each of the nodes collects all of node information signals representative of states of the nodes; such collection of all of the node information signal in each node makes it easy to check an alarm by a superintendent (abstract; col. 1, lines 53-67; col. 2, lines 1-30). The ring network system may be a synchronous optical network (SONET), (col. 1, lines 42-50; col. 2, lines 44-48; col. 4, lines 36-40, 56-61). Therefore, it would have been obvious to one having ordinary skill in the art to modify Grau's network atlas mapping tool to include Yoshiyama's ring network because it allows a user to design a ring network having graphical representations of nodes, links, and other elements connected to the network, to monitor the network, collect, and provide information about the condition of every device.

Claim 2:

Grau teaches that more detailed information includes individual information about any links (fig. 6; col. 7, lines 47-65; col. 9, lines 45-58; col. 11, lines 61-67; col. 12, lines 1-21).

Claims 8 and 20:

Grau teaches determining whether a node serves as a hub and displaying the hub designation with a graphical representation of the node (col. 14, lines 29-39).

Claim 9:

Grau teaches a default selection (col. 2, lines 27-33; col. 7, lines 66-67; col. 8, lines 1-10).

Claim 10:

See claim 1. Grau teaches a mapping tool that allows the user to view information about the status of the nodes and links of the network (col. 2, lines 34-42; col. 4, lines 2-20, 54-57; col. 11, lines 61-67).

Claims 12 and 26:

See claim 1. Grau teaches a window menu for creating (specifying) components of the network (col. 8, lines 11-27).

Claims 14 and 28:

See claim 1. Grau/Yoshima teaches selection of nodes and/or links in a ring-type-network (Grau: col. 2, lines 1-18; col. 4, lines 2-20, 31-38; Yoshima: col. 1, lines 42-50; col. 2, lines 44-48; col. 4, lines 36-40, 56-61).

8. Claims 3, 15, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama* in view of the article entitled Sonet Management, published by America's Network in August 1997.

Claims 3 and 23:

Grau/Yoshiyama does not teach that the information includes individual

information about any drop ports on the selected node. However, Sonet management discloses a system map with color-coded indicators to display network and circuit status, the Sonet Network Management System (SNMS) lets carriers manage multiple Sonet and asynchronous network elements from a central location. The system displays alarms and information on the network map including ports that are in an alarm state (lines 1-21). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include Sonet management's teaching of displaying port status in Grau/Yoshiyama because users are provided with visual information about the status of network elements such as ports so that technicians may determine which ports have loose conditions or physical defects, locate the fault and solve the problem.

Claims 15 and 25:

See claims 1 and 3. Grau/Yoshiyama teaches information about links and nodes. Sonnet management teaches information about drop ports.

9. Claims 4, 6, 7, 11, 13, 16, 18, 19, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama* in view of *Pamela Fruth* (article entitled Fluke Networks SwitchWizard, published by Network Computing in 1996).

Claims 4 and 16:

See claim 1. Grau/Yoshiyama does not teach determining a percent consumed and a percent spare capacity for each node and displaying the percentages. However, Fruth discloses Fluke Networks SwitchWizard, which works with the Enterprise LANMeter family of portable network management tools and performs a Segment Discovery test that itemizes vital network information. It also includes a MultiPort Statistics feature that looks at activity on each port of the switch and displays utilization and error percentages; it also monitors other ports in the background; the data can be sorted by port number, average utilization or average error rates (lines 1-13). Thus, it would have been obvious to one ordinarily skilled in the art at the time of invention to include Fruth's teaching of information on port utilization because it helps administrators to find problems before they become serious.

Claims 6, 7, 11, 13, 18,19, and 27:

See claims 1 and 10 above. Fruth teaches displaying utilization percentages (consumption status), (lines 8-13).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama/Fruth* in view of *Barry Nance* (article entitled SLA enforcement tools to the rescue, Visual Uptime wins Blue Ribbon Award for accuracy and

reporting features, published by Network World in April 2000).

Claim 5:

Grau/Yoshiyama/Fruth does not teach a percent restricted and a percent pending. However, Nance discloses the software VitalSuite for monitoring complex networks, which consists of VitalHelp (among other components) to assess the health of TCP/IP-based applications. When it determines the cause of a problem, it posts alerts to a network administrator. The Network Heat Chart is a VitalSuite tool that's useful for tracking SLA compliance. A historical report of availability and response time data, the Heat Chart provides a visual summary of network quality; the report shows the performance of devices within each resource class, characterized by availability, utilization, congestion and errors (page 3, lines 2-20). Therefore, it would have been obvious to an artisan in the art at the time the invention was made to include Nance's teachings in Grau/Yoshiyam/Fruth's network mapping tool because it enables users to view history reports that reveal the traffic levels of the network, what is available (or not available, restricted), congestions (pending), and errors, and take corrective action.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama* in view of *Nance*.

Claim 17:

See claim 5. See further: Nance, page 3, lines 2-20.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama* in view of *Sanschagrín et al* (US 6,295,540 B1).

Claim 21:

See claim 1. *Grau/Yoshiyama* does not teach a trunks integrated record keeping system. However, *Sanschagrín* discloses a network management system that uses a data synchronizer, which initiates an inventory verification request specifying the verification data to be returned. The synchronizer then determines the network manager and the record keeping system involved in the inventory verification request. *Sanschagrín* teaches that an application of the synchronizer is for updating inventory data of a trunk integrated record keeping system (TIRKS) using an integrated network manager (INM), (abstract; col. 2, lines 49-67). Thus, It would have been obvious to one having ordinary skill in the art at the time of invention to include *Sanschagrín's* teaching of a record keeping system (TIRKS) in *Grau/Yoshiyama's* network system because as *Sanschagrín* says, the TIRKS system allows users to automatically log, route, and monitor the progress of work orders, view and maintain an accurate, up-to-date inventory of all facilities and equipment and their assignments, execute interactive, user-defined queries and

generate customized reports of work center activity, critical dates, and jeopardy conditions, etc.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Grau/Yoshiyama* in view of *Alan Zeichick* (article entitled Predicting Failure, published by InternetWeek in 4 September 2000).

Claim 22:

See claim 1. *Grau/Yoshiyama* does not teach a mismatch identifier. However, *Zeichick* discloses tools the help administrators catch network problems caused by hardware faults or changing network usage patterns. *Zeichick* teaches that data is compared against a historical database, unexpected changes in their usage patterns might signal real problems ahead (page 33, col. 2, lines 8-14). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include *Zeichick's* tools in *Grau/Yoshiyama's* system because as *Zeichick* says, the system has the capability to alert administrators to what might appear to be minor problems or changes in operating status; operators are enabled to analyze faults of components that may be ready to fail; and they may predict future problems.

14. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Grau/Yoshiyama in view of Henderson et al (US 6,058,103).

Claim 24:

Grau/Yoshiyama does not teach bandwidth usage. However, Henderson discloses a method for managing a telecommunications network having a graphical user interface for a user to interact with an object model of the physical telecommunications network (abstract; col. 2, lines 32-52). Henderson teaches that as the network becomes more capable, telecommunication services providers are faced with increased demand, which requires increased communication bandwidth. To meet the increased communication bandwidth requirements, many service providers have turned to optical communications (SONET), (col. 1, lines 33-46). Therefore, it would have been obvious to a person having ordinary skill in the art to include information about bandwidth usage in Grau/Yoshiyama's network system because users are provided with information about the data transfer capacity of the communications system.

Conclusion

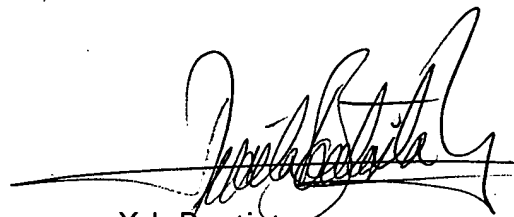
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to X L Bautista whose telephone number is (703)

305-3921. The examiner can normally be reached on M-Th (8:00-18:00) Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

A handwritten signature in black ink, appearing to read 'X L Bautista', is written over a horizontal line.

X L Bautista
Patent Examiner
Art Unit 2173

xlb
September 8, 2003